



SEI Agile Research Forum 5.22.12

Part of the **SEI Webinar Series** Keeping you informed of the latest solutions



Software Engineering Institute

Carnegie Mellon



Views on Balancing Agility and Discipline

James Over

Senior Technical Staff

James Over has led the transition of the TSP into government and industry organizations throughout the world. He co-authored the book Leadership, Teamwork, & Trust (with the late Watts Humphrey) and several SEI publications on software process definition and improvement.

See his full bio at:

www.sei.cmu.edu/go/agile-research-forum/



Software Engineering Institute

Carnegie Mellon

SEI Agile Research Forum

Twitter **#SEIAgile**

© 2012 Carnegie Mellon University

Report Documentation Page			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE 22 MAY 2012	2. REPORT TYPE	3. DATES COVERED 00-00-2012 to 00-00-2012		
4. TITLE AND SUBTITLE Views on Balancing Agility and Discipline		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Carnege Mellon University ,Software Engineering Institute,Pittsburgh,PA,15213		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 16
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	19a. NAME OF RESPONSIBLE PERSON	

Balance



Change is accelerating.

To keep your balance,

you need agility and discipline.



Agility

Respond rapidly,
respond efficiently,
to change,
with consistency.

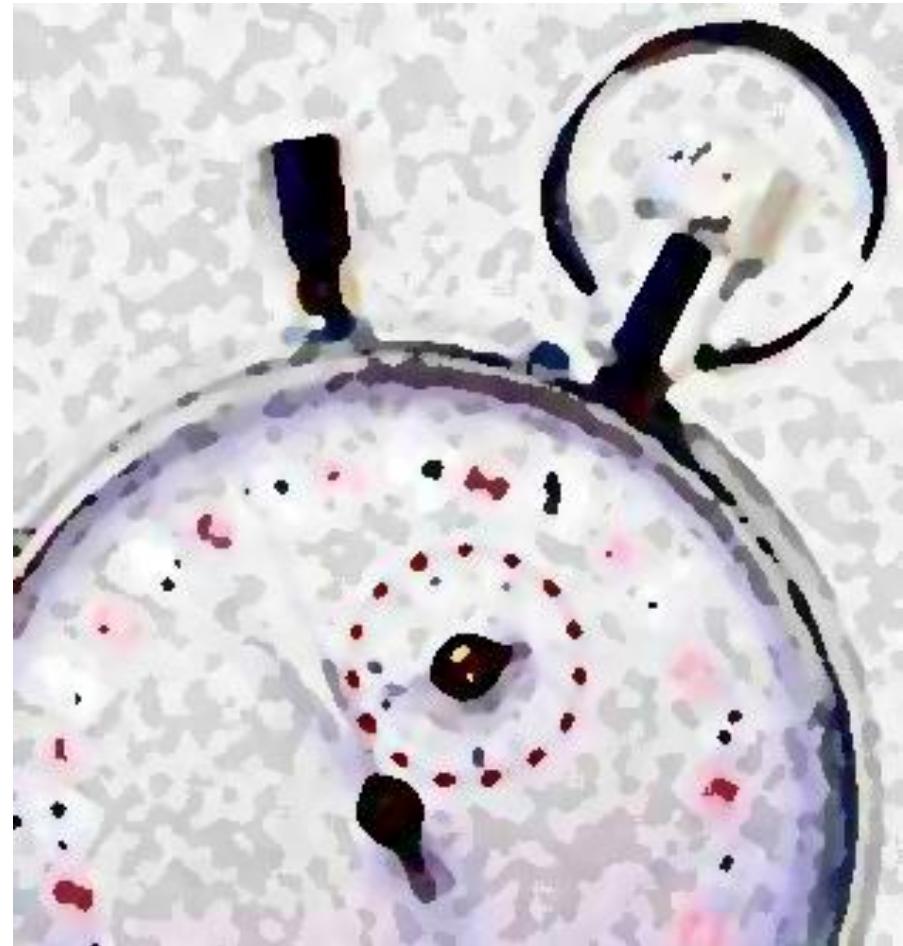


Measuring Agility

Response time

Efficiency

Consistency



Impediments to Agility in Software



Lack of ready backlog

Lack of “done” at the end
of a sprint

Lack of teamwork

Lack of good design

Tolerating defects



Software Engineering Institute

Carnegie Mellon

SEI Agile Research Forum
Twitter #SEIAgile
© 2012 Carnegie Mellon University

Avoiding the Impediments

Build high-performance teams.

Plan every project.

Use a measured process.

Design before you build.

Make quality the top priority.



High-Performance Teams

Software is knowledge work.

Build self-managed teams that

make their own plans,

negotiate their commitments,

know the project status, precisely.



Plan Every Project

Never make a commitment without a plan.

Use historical data.

If the plan doesn't fit the work,
fix the plan.

Change is not free.



Use a Measured Process



To measure the work, define its measures.

To measure the process, define its steps.

If the process doesn't fit the work, fix the process.



Design Before You Build

Design informs the implementation.

Good designs produce less code.

Design what you know and explore the rest.

When you know enough, finish the design, then build.



Make Quality the Top Priority

Defects are inevitable.

Poor quality wastes resources.

The sooner you fix it, the better.

Quality without numbers is just talk.



Competitive Advantage

Twenty projects in 13 organizations

- had an average schedule error of only 6% in a range of -24% to +25%
- delivered more functionality than originally planned or finished ahead of schedule
- cost 5% more than planned in a range of -20% to +27%
- had test costs of less than 7% of total cost with an average cost of quality of only 17%
- delivered software with an average of only six defects in 100,000 lines of new and modified code



Discipline is the Key to Agility

Agility isn't achieved by *trying* to be agile.

It isn't achieved by adopting slogans, reciting metaphors, or through imitation.



It can only be achieved when everyone in the organization acts professionally, and uses a disciplined, measured approach to their work.



Presenter Information

Presenter

James Over

Sr. Member of the Technical Staff

Process Management Program

Telephone: +1 412-268-5800

Email: info@sei.cmu.edu

U.S. Mail

Software Engineering Institute

Customer Relations

4500 Fifth Avenue

Pittsburgh, PA 15213-2612

USA

Web

www.sei.cmu.edu

www.sei.cmu.edu/contact.cfm

Customer Relations

Email: info@sei.cmu.edu

Telephone: +1 412-268-5800

SEI Phone: +1 412-268-5800

SEI Fax: +1 412-268-6257



Software Engineering Institute

Carnegie Mellon

SEI Agile Research Forum

Twitter #SEIAgile

© 2012 Carnegie Mellon University

NO WARRANTY

THIS CARNEGIE MELLON UNIVERSITY AND SOFTWARE ENGINEERING INSTITUTE MATERIAL IS FURNISHED ON AN "AS-IS" BASIS. CARNEGIE MELLON UNIVERSITY MAKES NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, AS TO ANY MATTER INCLUDING, BUT NOT LIMITED TO, WARRANTY OF FITNESS FOR PURPOSE OR MERCHANTABILITY, EXCLUSIVITY, OR RESULTS OBTAINED FROM USE OF THE MATERIAL. CARNEGIE MELLON UNIVERSITY DOES NOT MAKE ANY WARRANTY OF ANY KIND WITH RESPECT TO FREEDOM FROM PATENT, TRADEMARK, OR COPYRIGHT INFRINGEMENT.

Use of any trademarks in this presentation is not intended in any way to infringe on the rights of the trademark holder.

This Presentation may be reproduced in its entirety, without modification, and freely distributed in written or electronic form without requesting formal permission. Permission is required for any other use. Requests for permission should be directed to the Software Engineering Institute at permission@sei.cmu.edu.

This work was created in the performance of Federal Government Contract Number FA8721-05-C-0003 with Carnegie Mellon University for the operation of the Software Engineering Institute, a federally funded research and development center. The Government of the United States has a royalty-free government-purpose license to use, duplicate, or disclose the work, in whole or in part and in any manner, and to have or permit others to do so, for government purposes pursuant to the copyright license under the clause at 252.227-7013.

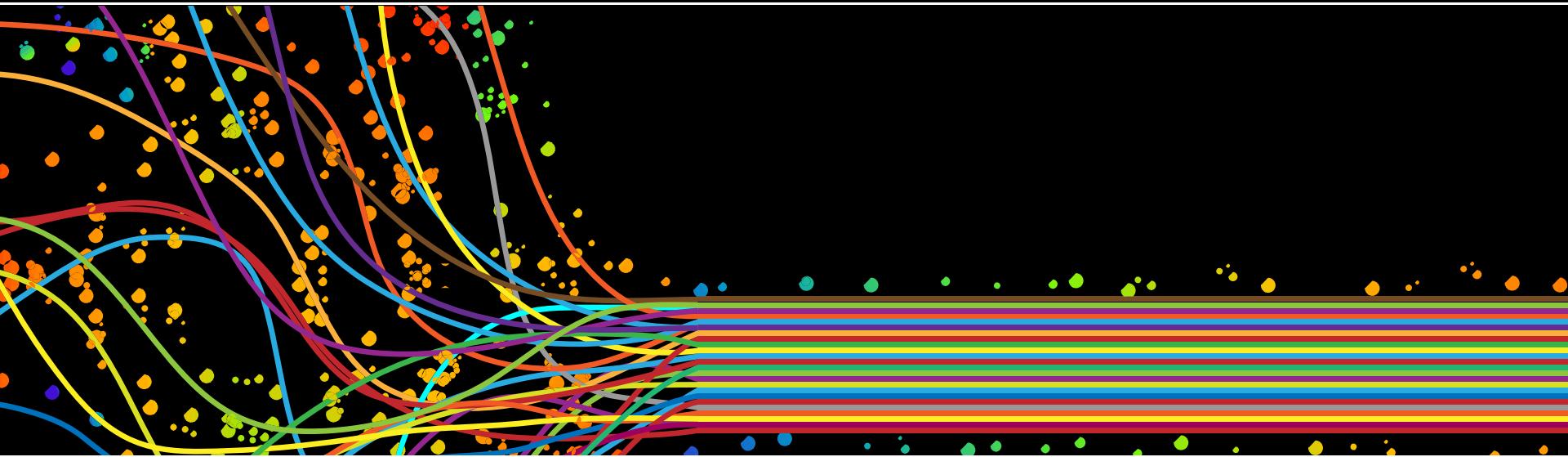


Q&A

TSP SYMPOSIUM 2012 DELIVERING AGILITY WITH DISCIPLINE

7th Annual Software Engineering
Institute (SEI) Team Software Process
(TSP) Symposium

September 17–20, 2012 • St. Petersburg, Florida



Software Engineering Institute

Carnegie Mellon

SEI Agile Research Forum

Twitter #SEIAgile

© 2012 Carnegie Mellon University